

## Special article

# Judging journalism: how should the quality of news reporting about clinical interventions be assessed and improved?

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Health care receives a lot of attention in the media. Rarely a day goes by without the wonders or horrors of some screening programme, drug, surgical procedure, or clinical service being discussed in the pages of our newspapers and on our television screens. Most of the major newspapers and television channels employ correspondents who specialise in health and medicine. Every day, these correspondents expect to be alerted to many potential "stories" by medical journals, policy makers, health service managers, professional interest groups, consumer interest groups, the pharmaceutical industry, research funders, and researchers. The correspondents' interactions with these sources and their own activities in seeking, selecting, and structuring information all contribute to the shaping of stories.

Media reports can influence the use that people make of healthcare interventions. Recent contraceptive "pill scares" communicated via the media have been associated with increases in the numbers of terminations of unwanted pregnancies among some populations,<sup>1,2</sup> although not others.<sup>3,4</sup> Women themselves have directly reported that they became pregnant after they stopped taking their oral contraceptives because of adverse media publicity.<sup>1-3</sup> A systematic review of the effects of media "campaigns" has shown that these can, at least in some circumstances, affect the use people make of health services.<sup>5</sup> For example, publicity about the extremely high rates of hysterectomy among women in one Swiss canton appears to have triggered a fall in these rates,<sup>6</sup> and there have been several examples of media campaigns that have increased the uptake of immunisations.<sup>7,8</sup> It seems likely that both healthcare professionals and the general public are influenced.

Although it is not clear how and to what extent the specific characteristics of media reports of a particular issue influence their impact, most people would agree that media coverage of healthcare interventions should be of good quality. Their judgments about what constitutes good quality, however, are likely to vary according to their values and perspectives, and what they consider the purpose of such coverage to be. Representatives of different groups tend to judge the quality of news

reports according to different criteria.<sup>9</sup> The quotations in box 1 summarise several published opinions about one newspaper article that discussed possible genetic causes of asthma and the factors that affected its publication.

### Judgments from scientific and medical perspectives

When the quality of news reporting about science, including medical and health services research, is assessed from a scientific perspective, certain "failings" are regularly identified. These are usually considered under the broad heading of accuracy. They include: omission of information about research methods; omission of relevant information about results; lack of qualifying information; and misleading headlines.<sup>16-18</sup> Basically, newspaper reports fail when they are compared with a gold standard of information presented in a scientific report or paper.

There are several problems with the widely held assumption that scientists and (or) medical doctors are the (only) experts able to assess whether journalists have got a story right. Firstly, scientists and doctors do not all agree about what, for example, the advantages and disadvantages of particular healthcare interventions are. Research findings and their interpretations tend to be provisional. Perceptions of what is "true" change over time. Many scientists and doctors have vested interests that tend to influence their views. Several researchers have found that scientists who acted as sources for news stories were less critical of the specific items of coverage in which they appeared.<sup>16,19</sup> One partial explanation for this is that given the presence of conflicts and disagreements within science, scientists will be less critical of news stories to which they have had input than of others in which different points of view are presented.<sup>19</sup>

Secondly, questions of whether a particular news item is accurate, essentially correct, or appropriate can only be answered with reference to subjective value judgments. Scientists and doctors will disagree among themselves about where the distinction lies between an appropriately simplified presentation of research findings and a distorted one, between a

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Accepted 21 June 1999

These comments relate to an article published on the front page of the *Sunday Times* in 1992 headlined “British breakthrough likely to end asthma suffering”.<sup>10</sup> They were published in an editorial and ensuing correspondence in the BMJ.

### The article and its potential impact

*Hype from journalists and scientists: an unholy alliance (title)*

... the excesses of Sunday's papers...

“... Imagine that you are the parent of a child severely affected by asthma, whose life is restricted by her condition and who you know has a chance of dying of her disease. How would you feel when you opened the *Sunday Times* of 8 March and read that the disease will be eradicated within five years? You are likely to feel elated, but eventually you will be brutally let down.”<sup>11</sup>

“It was therefore surprising that Richard Smith was unable to point to any inaccuracy in my stories on ... the gene for asthma... Instead his attack relied on accusations of “appalling hype” which he failed to substantiate. In fact, both stories were followed up prominently by virtually every serious newspaper and television company: clearly the vast majority of my journalist colleagues disagreed with Smith's judgment.”<sup>12</sup>

“We know that patients included in [the studies] are delighted that the work has received this publicity. They, and I, are confident that the study of genetic disease... will eventually lead to better treatments for disease such as asthma, but none of us believe that we can confidently state when knowledge of the genetic basis of any disease will have this happy outcome.”<sup>13</sup>

“Richard Smith's trenchant editorial on the media's hype of the discovery of the gene for asthma is particularly relevant because the science behind the finding, which is not new, is highly controversial.... The article in the *Sunday Times* ... failed to mention that other workers have tried to replicate this work without success.”<sup>14</sup>

### Production of the article

“... But the *Sunday Times* is not entirely to blame. All sorts of people want to get their messages out through the newspapers for all sorts of reasons, and they may not be as careful as they should be... Sir Walter [Bodmer] and Dr [Bridget] Ogilvie both want to raise the profile of medical research and help to find more funds for what they regard as vital research, but they do nothing for the public understanding of science by making statements that can be used to endorse the suggestion that the eradication of genetic disease is something not much more complicated than Lego.”<sup>11</sup>

“When scientists of the eminence of Sir Walter Bodmer and Dr Bridget Ogilvie tell me that such important research is a medical milestone, they are not contradicting the more cautious doctors leading the research team; they are simply using their experience to give the wider perspective demanded by my readers.”<sup>12</sup>

“My comments were ... directed not only at the gene for asthma but at the value of the project in general, and this may not have come across in a short article. That is a risk that is always attached to communication with the media, and I make no apology for continuing to explain the importance of this work to the public.”<sup>15</sup>

good translation for a lay audience and an unduly sensationalised presentation.<sup>20 21</sup> Research is presented in many contexts. Judgments about the quality of presentations are likely to be influenced by consideration of the audiences for whom they are intended and the contexts in which they are made.

### Judgments of adequacy for decision support

Increasing interest in evidence-based health care and in the involvement of patients in decisions about their own care seems to have stimulated attempts (mainly by doctors) to assess how useful news reports and other media items about health care are likely to be to would-be decision makers.

The Index of Scientific Quality was developed to evaluate the scientific quality of news reports about health.<sup>22</sup> It reflects the types of critical appraisal criteria that are advocated for those who want to apply an evidence-based approach to health care. In developing the index, the authors acknowledged that “it is neither feasible nor appropriate that health and science reports in the mass media should resemble publications in scientific journals”. They argued, however, that news reports should allow readers to draw conclusions about

(1) the applicability of the information to any personal decisions or policies that are addressed either explicitly or implicitly; (2) the strength of evidence on which the report is based; and (3) the magnitude of the effects, risks, associations, and costs that are reported.

Seven items on the Index of Scientific Quality assess the extent to which the following are clearly reported: the applicability of the information to particular populations; the distinction between facts and opinions; the validity of the evidence; the strength or magnitude of the findings; the precision of the findings; the consistency or otherwise of the findings with other research evidence; and the consequences of the findings. The eighth item is a global quality assessment. The authors reported a chance corrected inter-rater agreement ( $\kappa$ ) of 0.62 when six trained raters evaluated the scientific quality of 60 health related news articles that had been intentionally selected to cover a wide range of topics and quality.

Its authors acknowledge that the Index of Scientific Quality has several limitations. It focuses only on one aspect of the quality of the news reports and it inevitably requires raters to make subjective judgments. It does not, however, require that raters are knowledgeable

about the topic covered by the news report being evaluated.

One of the implicit assumptions underlying the Index of Scientific Quality and some other quality assessments that have focused on their usefulness to rational decision makers is that news reports should be able to stand alone (or will be used) as self sufficient items of information that can be relied upon for decision making. It is not clear whether that is how journalists intend them to be used nor whether, or in what circumstances, people use them in that way in practice.

### Journalists' aims and the implications for quality assessments

Health and medical correspondents have various perceptions of their role, but we suspect that few would claim to be aiming to write news reports that could serve as the sole basis for informed decision making about healthcare interventions. Many of them are aware that they have a public service role and express a sense of responsibility and a desire to avoid raising false hopes or causing undue anxiety about healthcare interventions.<sup>23</sup> However, they are primarily journalists who need to present "good stories" that their editors will want to publish and that will keep people reading their newspapers or watching their television programmes. Although providing information is part of their role, they also want to prepare reports that will entertain and engage people and stimulate discussion.<sup>24 25</sup>

Given that the aims of journalists are not primarily to summarise the research evidence about healthcare interventions to help people make informed decisions, it is not surprising that they take a broader view of the quality of reporting than is usually seen in assessments of accuracy or usefulness for decision making undertaken from scientific medical perspectives. Although some of the science writers who commented on the Index of Scientific Quality thought it might be useful as a checklist for preparing news reports, several also noted that it took a rather narrow view of the quality of science reporting and were rather sceptical about the approach.<sup>22</sup> Journalists might, for example, consider the addition of an individual story to a news report based on a statistically based research report to be a positive enhancement. The Index of Scientific Quality would not capture such an addition in a positive light, and scientists using the index to rate the news report might consider the individual story a negative influence on, for example, the ease with which it could be determined to whom the report applied, or the clarity of the magnitude of effects reported.

We are not familiar with the types of quality assessments that are used in schools of journalism to help would-be health and medical correspondents to develop their skills and refine their approaches. The basic criteria against which media representatives judge whether or not something has dipped below their minimum acceptable quality threshold, however, can be seen in publications relating to press self regulation.

### The Press Complaints Commission

In the UK, the Press Complaints Commission has been the focus of self regulation of the media since it replaced the Press Council in 1991. Most of the items in its code of conduct,<sup>26</sup> which was developed by a committee of media editors, relate to the ways in which journalists may collect and use information from sources (for example, the use of listening devices, respect for privacy, the use of harassment or subterfuge, and payment for articles) and the groups of people who may not be publicly identified (for example, children involved in sex cases and innocent friends or relatives of people accused of crimes). The opening clause, however, focuses on accuracy (box 2).

#### Accuracy

- Newspapers and periodicals should take care not to publish inaccurate, misleading, or distorted material, including pictures
- Whenever it is recognised that a significant inaccuracy, misleading statement, or distorted report has been published, it should be corrected promptly and with due prominence
- Newspapers, while free to be partisan, must distinguish clearly between comment, conjecture, and fact
- A newspaper or periodical must report fairly and accurately the outcome of an action for defamation to which it has been a party

Box 2 The Press Complaints Commission's clause about accuracy

The question of exactly what counts as inaccurate, misleading, or distorted is not spelt out. As far as we are aware, the Press Complaints Commission has dealt with only one complaint about the accuracy of articles about health or health care. This complaint, about a newspaper report on the effects of passive smoking, showed that the commission will consider complaints about contraventions of the accuracy clause that are based on claims that news reports have misinterpreted scientific reports.

The director of Action on Smoking and Health (ASH) complained about an article published in the *Sunday Telegraph* that was headlined "Passive smoking doesn't cause cancer—official".<sup>27</sup> The article claimed that a summary of a study by the International Agency for Research into Cancer had been withheld because it had shown that there might be no link between passive smoking and cancer, and that passive smoking might even have a protective effect. The complainant argued, among other things, that the fact that the study had not in isolation shown a definitive (statistically significant) link between passive smoking and cancer had been wrongly interpreted in the newspaper article as proving there was no link. The Press Complaints Commission asked the newspaper to publish a new article, referring readers to the original article,

when the full report on which the summary had been based was published. When the newspaper did this, in an article headlined “Study fails to link passive smoking with cancer,”<sup>28</sup> the Press Complaints Commission considered the matter resolved and the complaint was not upheld.<sup>29</sup>

It is possible that more vigorous complaining to the Press Complaints Commission about news reports that misinterpret specific research reports might ultimately tend to improve the way that statistical findings are presented and interpreted in the media. It would probably not, however, have much impact on the broader patterns of reporting about healthcare interventions.

### The broader picture

The sense of dis-ease that many scientists, doctors, health service personnel, and consumer organisations feel about media coverage of health and medicine has as much to do with the overall patterns of reporting as with the ways in which particular topics are covered in individual news reports. Some people find that the criteria of newsworthiness that journalists apply when deciding what stories to cover do not always coincide with their own perceptions of what is important. The frames within which journalists present stories do not always correspond with their own understanding of what matters in relation to a particular issue, event, or report. The (human) sources that journalists use, either responsively or proactively, are not always those whom they themselves would consider to have the most knowledge or the most interesting or legitimate perspective on an issue.

Just as particular newspapers have certain political tendencies and allegiances to certain political parties, some newspapers (or individual health correspondents) also adopt quite persistent positions on particular health issues. One of the most striking examples was the *Sunday Times*’ promotion of the view that HIV was not the cause of AIDS.<sup>30</sup> Other positions are slightly more subtly adopted. For example, the moral and political stances of the different newspapers have been reflected in the ways they cover stories such as the Child B case,<sup>31</sup> and the interpretations they put on specific research reports about, for example, the sexual health of teenagers in the UK.<sup>32</sup>

Journalists deal in stories and are particularly keen to present the stories of individuals. These stories are powerful in their hands. Those of us who are used to presenting and interpreting statistical information about the average effects of healthcare interventions among populations can find it rather disconcerting when journalists make such an impact with the stories of a few individuals who have had rare, extremely positive or extremely negative experiences, however “accurately” the journalists convey the experiences and views of those individuals.

### Conclusions

With their enormous capacity to “get a message out”, the media can play an important part in public health. They can alert the public

to the potential of new healthcare interventions and warn about the possibility that established interventions may have harmful as well as beneficial consequences. The question of exactly when something should become news, however, is open to debate. Individual journalists, their editors, their sources, and their readers will have different opinions about whether the evidence about the benefits or risks of a particular intervention is strong enough to justify a news story, what kind of “angle” is appropriate, and whether a particular presentation of information is likely to alarm people unduly or raise false hopes.

Several factors tend to push towards the “strengthening” of stories for media presentation. The “sources” who take stories to journalists often have a vested interest in getting their message out and will try to “sell” it to journalists in its strongest possible light. Journalists know that their stories have to compete with others for print space or air time, so they are trying to present strong and exciting news to their editors and audiences. This may encourage them to seek out and listen to the less cautious among their potential sources.

The consequences of an inaccurate or misleading health story could be serious—more so than inaccurate reporting about individual celebrities that can cause personal distress and the subsequent movement of large sums of money between media organisations, lawyers, and the injured celebrities. The likelihood of a health story causing major public health problems is, of course, moderated by the fact that

*“Newspapers have a lovely time with medical news, manufacturing outrage about ministerial statements on contraceptive dangers, or the threat of BSE, or cot death, or conflicting advice on health and nutrition. There is much evidence that the public loves these stories. There is less evidence that it believes them or takes them at all seriously.”*<sup>33</sup>

The impact of particular stories seems to some extent to be unpredictable. None the less, the potential for harm, as well as for benefit, remains.

In our opinion, ideal standards for news reports about health care and criteria for assessing their quality should be discussed and agreed by representatives of all parties. They should be informed by awareness of the roles and purposes of news reporting and of the ways in which people understand and use it. The questions of how people understand and use information from the media, and of how the effects of the media are mediated, need to be addressed by empirical research.

The respective responsibilities of sources, journalists, and readers should all be emphasised. The fact that news reports result from interactions between journalists and their sources needs to be more widely acknowledged, and the aims, constraints, and tendencies of journalism need to be more widely understood if readers and critics are going to interpret news reports “appropriately”.

New options for facilitating the production of good quality stories and for monitoring the quality and impact of media coverage of health



care should be considered. A useful start could be made if a group of specialist health correspondents, editors, health service personnel, consumer advocates, and health related researchers, perhaps under the umbrella of a special arm of the Press Complaints Commission, might (1) review the issues relating to the quality of health reporting and set some basic standards; (2) make recommendations about future reporting practices; (3) act as a watchdog or encourage and facilitate appropriate complaints, or both; and (4) undertake or commission regular reviews of media reporting of health issues to monitor its quality.

Vikki Entwistle is partly funded by a special research fellowship from the Leverhulme Trust. The health services research unit receives core funding from the chief scientist's office of the Scottish Office Department of Health.

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